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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,086	07/18/2001	Lino Iglesias	38146	7395

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JEFFREY FURR
253 N. MAIN STREET
JOHNSTOWN, OH 43031

EXAMINER
TANG, KENNETH

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/682,086</td><td>Applicant(s)
IGLESIAS ET AL.</td><td></td></tr>
<tr><td>Examiner
Kenneth Tang</td><td>Art Unit
2127</td><td></td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 November 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *18 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-4 are presented for examination.

Claim Objections

2.   Claims 1-4 are objected to because of the following informalities:

a.   In claim 1, "plurality" should be changed to "plurality", "mean"s" should be

changed to "mean's"

b.   In claim 2, "Kernel"s" should be changed to "Kernel's", "event"s" should be

changed to "event's", "mean"s" should be changed to "mean's", "microprocessor"s"

should be changed to "microprocessor's" ([c9], line 9), "containg the following fields;"

([c3], line 6) should be changed to "containing the following fields:", "fields;" ([c10],

line 2, [c12], line 3, [c14], line 2) should be changed to "fields:", "the Parser;" ([c10], line

12) should be changed to "the Parser:", "Allocatoin" ([c12], line 5) should be changed to

"Allocation", "the task; ." ([c14], line 3) should be changed to "the task;", "occupies,.

and" ([c15], line 4) should be changed to "occupies, and", "examined. and" ([c18], line

10) should be changed to "examined, and"

c.   Claims 3 is objected for the same reasons as stated in the objection of claim 1

above.

d.   Claims 4 is objected for the same reasons as stated in the objection of claim 2

above.

Appropriate correction is required. The Examiner asks that the Applicant review the claims

carefully and correct all spelling and grammatical errors.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

    a.   The following terms are indefinite:

        i.   In Claim 1, "Having" ([c1], line 3, [c2], lines 9, 15, 16, 20, 23, 26 and 28) is indefinite because it indicates a system claim but claim 1 is a method claim.

        ii.   In Claim 1, "dynamic chain" in [c2], line 6 is indefinite because it is not made explicitly clear in the claim language whether or not this is the same "dynamic chain" in [c1], line 10 or a new dynamic chain is being introduced. In addition, there is no relationship made of any dynamic behavior in the blocks.

        iii.   In claim 1, "kernel" ([c1], line 4) is indefinite because it is unclear in the claim language how the kernel is involved with processing or control the execution of all the task control blocks.

        iv.   In claim 1, "task control blocks" are indefinite because it is not made explicitly clear in the claim language whether these are the same as the "Task Information Block", "Event Control Block", "Pipe Control Block", "Data Memory Control Block", etc.

v.   In Claim 1, "a chain" in [c2], line 8 is indefinite because it is not made explicitly clear in the claim language whether or not this refers to the "dynamic chain" in [c1], line 10 or a new chain is being introduced.

vi.   In Claim 1, "Task Allocation Tables" in [c2], line 17 is indefinite because there is no relationship established between these tables to the task control blocks.

vii.   In Claim 1, "subprocess" [c2], lines 24, 27, and 29 is indefinite because it is not made explicitly clear in the claim language which process this is a subprocess of.

viii.   In claim 1, "them" ([c2], line 26) is indefinite because it is not made explicitly clear in the claim language what them refers to.

ix.   In Claim 2, "Having" ([c3], line 3, [c8], line 1, [c9], line 1, [c10], line 1, [c12], line 1, [c16], lines 1, 4, and 8, [c17], line 1, [c18], and line 11 is indefinite because it indicates a system claim but claim 1 is a method claim.

x.   In claim 2, "task control blocks" are indefinite because it is not made explicitly clear in the claim language whether these are the same as the "Task Information Block", "Event Control Block", "Pipe Control Block", "Data Memory Control Block", etc.

xi.   In claim 2, "a Pipe" ([c4], line 8 is indefinite because it is not made explicitly clear in the claim language whether or not this is the same as "the Pipe" in [c4], line 6.

xii.   In claim 2, "chain" ([c4], lines 14, 15, and 17, [c7], line 13) is indefinite because it is not made explicitly clear in the claim language whether or not this term refers to the dynamic chain ([c4], line 3).

xiii.   In claim 2, "Control & Status field" is indefinite because it is not made explicitly clear whether this is one or two fields.

xiv.   In claim 2, "a Data memory Pointer" ([c10], line 13) is indefinite because it is not made explicitly clear in the claim language whether this is the same as the Task Control Block Pointer, Event Control Block Pointer, etc., or if new additional data memory pointers are being introduced.

xv.   In claim 2, "pointers" is indefinite because it is not made explicitly clear in the claim language whether or not this pointer is referring to the Data Memory Pointer ([c10], line 13).

xvi.   In Claim 2, "subprocess" [c16], lines 1, 12, [c18], line 11 is indefinite because it is not made explicitly clear in the claim language which process this is a subprocess of.

b.   The following lacks antecedent basis:

xvii.   Claim 1 recites the limitation "the memory blocks" in [c2], line18. There is insufficient antecedent basis for this limitation in the claim.

xviii.   Claim 1 recites the limitations "the WAIT state" and "the READY state" in [c2], lines 25 and 27. There is insufficient antecedent basis for these limitations in the claim.

xix.   Claim 1 recites the limitation "the computer means" in [c2], line 31.

There is insufficient antecedent basis for this limitation in the claim.

xx.   Claim 2 recites the limitation "the Task Header" in [c3], line16. There is

insufficient antecedent basis for this limitation in the claim.

xxi.   Claim 2 recites the limitation "the chain" in [c3], line 26 and [c16], line

14. There is insufficient antecedent basis for this limitation in the claim. It is

unclear in the claim language whether or not this refers to the dynamic chain.

xxii.   Claim 2 recites the limitation "the pipe" in [c4], line 6. There is

insufficient antecedent basis for this limitation in the claim.

xxiii.   Claim 2 recites the limitation "the identifier" in [c4], line 9. There is

insufficient antecedent basis for this limitation in the claim.

xxiv.   Claim 2 recites the limitation "the event"s" in [c4], line 9. There is

insufficient antecedent basis for this limitation in the claim.

xxv.   Claim 2 recites the limitation "the Parser" in [c10], line 12. There is

insufficient antecedent basis for this limitation in the claim.

xxvi.   Claim 2 recites the limitation "the pointer" in [c16], lines 8 and 18, [c17],

line 5. There is insufficient antecedent basis for this limitation in the claim.

2.   Claims 3 is rejected for the same reasons as stated in the objection of claim 1 above.

3.   Claims 4 is rejected for the same reasons as stated in the objection of claim 2 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   **Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Dean, Jr. et al. (hereinafter Dean) (US 4,123,795) in view of Shaw et al. (hereinafter Shaw)

(US 5,745,758).

5.   As to claim 1, Dean teaches a method for architecture for a multitasking operating

system, the method comprising the steps of:

Having a processing Kernel (operating system) *(col. 51, lines 53-60)*;

Controlling the execution of each task with a task control block with every task

comprises one block and with a plurality of task control blocks *(col. 4, lines 64-67 and col. 5,*

lines 1-3);

Controlling events associated with a task using a Task Information Block with every task

comprising one block and with a plurality of Task Information Blocks *(col. 4, lines 64-67 and*

col. 5, lines 1-3);

Controlling events associated with a task using an Event Control Block with every event

comprising one block and with a plurality of Event Control Blocks *(col. 4, lines 64-67 and col. 5,*

lines 1-3);

Controlling a task's communication pipes with a Pipe Control Block with every pipe

comprising one block and with a plurality of Pipe Control Blocks *(col. 36, lines 51-66)*;

Managing memory assigned to a task with a Data Memory Control Block with a plurality

of Data Memory Control Blocks arranged in a chain *(col. 9, lines 56-68)*;

Having Task Data Memory blocks which are data memory blocks associated with each

task in which a task's Task Data Memory block stores its context on one Task Data Memory

block before yielding computer means handling to the Kernel (operating system) *(col. 9, lines*

56-68 and col. 49, lines 25-35);

Using Port Information Blocks which are special memory blocks used to handle a

microprocessor mean's input and output ports *(col. 12, lines 15-24)*;

Having the Kernel use Kernel Control Registers which are used to store required

operation data (operating system) *(col. 24, lines 33-40)*;

Having a plurality of Task Allocation Tables which is a table of pointers that accurately

identify the beginning of the memory blocks associated with a task *(col. 23, lines 9-21, col. 47,*

lines 7-15);

Starting a task's program code section with a Task Header which provides basic

information about the task *(col. 47, lines 7-15)*;

Having a Port State Update control block subprocess which carries out reading and

verification of a microprocessor's input ports to set up port events, which can be signaled when

the state of an input port changes *(col. 22, lines 50-64, col. 37, lines 13-32)*;

Having a Task State Update control block subprocess which carries out reading and verification of events to update the state of tasks on the WAIT state and switch them to the READY state if their expected event is signaled *(col. 22, lines 50-64, col. 18, line 29)*;

Having a Priority Task Ordering subprocess which selects a task in the READY state that is to be switched to the ACTIVE state *(col. 18, line 29, col. 23, lines 9-21)*; and

Having a Context and Control Restore subprocess which executes the restoration of all context variables associated with the active task *(col. 9, lines 63-68)*.

6.   Dean fails to explicitly teach a yielding to a parser which continues the execution of the active tasks' instructions and to have a dynamic chain of control blocks. Shaw teaches a dynamic control of information and a parser means which provides a linking for an execution call *(col. 11, lines 13-29, col. 18, lines 6-29, col. 20, lines 48-50)*. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Shaw's operating system architecture features of a parser which continues the execution of the active tasks' instructions and to have a dynamic chain of control blocks to Dean's operating system architecture in order to accommodate communications, storage and retrieval as well as optimizing the operating system performance *(col. 3, lines 1-5 and 35-40)*.

7.   Claim 3 is rejected for the same reasons as stated in the rejection of claim 1 above.

Allowable Subject Matter

8.   Claims 2 and 4 would be allowable if rewritten or amended to overcome the rejection(s)

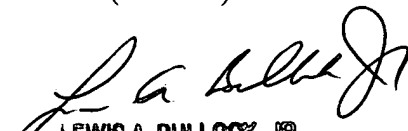under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The

examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER

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12/20/04